

# THE DIPTERA (CALYPTRATAE) OF THE SANDWELL VALLEY, WEST BROMWICH

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Perusal of the steadily increasing number of Royal Entomological Society Handbooks on Diptera inevitably leads the reader to the conclusion that large areas of the British Isles have had scant attention paid to their fly population. While certain localities have been extensively investigated, the majority remain virtually unswept by the dipterist's net, large tracts of Staffordshire falling into the latter category. It was with this in mind that the present survey was conducted and this is intended to be the first of a short series of papers on the Diptera of the Sandwell Valley, West Bromwich, which was considered to possess a number of interesting features as a dipterous habitat and was easily accessible for regular collecting visits. Some introductory comments on the area, collecting methods and relevant literature precede the species lists and main discussion.

Situated in the West Midlands within the 10 km grid square SP09 of the Ordnance Survey National Grid, the Sandwell Valley is an area of some 1700 acres containing two farms, reclaimed industrial land and recreational areas. It lies between West Bromwich Birmingham and Walsall, being unusual in that it is completely surrounded by the built-up area. The potential ecological interest of the valley is therefore considerable.

Geologically, Triassic sandstone deposits cover the West Bromwich area and underlying these are coal measures which have in recent history been most important to the economy of the area. The soils are a product of the surface rocks and glacial drift material, the characteristic soil being a leached brown soil, the texture of which varies from a silty loam to a sandy clay loam with some pockets of almost pure sand.

The vegetation of the valley is very varied. Changes of land use and reclamation policies mean that many open spaces consist of improved pasture with local authority plantings of a wide variety of trees and shrubs, but stretches of bent/fescue grassland of some antiquity are still to be found in places. The woodlands are of considerable interest; large tracts of hawthorn scrub, mature birchwood and oakwood are present, the latter including some magnificent trees of great age. The mixed woodlands are rich in tree species, grey poplar, ash, alder, *Salix* species, sycamore and horse chestnut being dominant, while the occasional exotic species reminds one that much of the area once formed the estate of the Earl of Dartmouth.

Over thirty pools are to be found, varying in area from a few square yards to 17 acres. These are often connected by streams,

\*1 St. Johns Close, Sandwell Valley, W. Bromwich, W. Midlands.

the resultant water systems providing a wide variety of habitats for the abundant water life of the locality.

Various studies of flora and fauna of the valley have in recent years been undertaken by the West Bromwich Field Society and the National History Department of the City of Birmingham Museum and Art Gallery, but these do not seem to have included work on Diptera. Whilst there seems to be a lack of background information on the flies of West Bromwich, this is not the case for Staffordshire as a whole and it seems pertinent briefly to review contributions made to the knowledge of Diptera in the county, for there is some evidence that such information may not previously have had the publicity it deserves and it may also enable the reader to compare other findings with those here. The earliest records were those of Edwin Brown in 'The Natural History of Tutbury' and they formed the basis of the species list published in the Victoria County History of Staffordshire, Vol. 10. The list consists of names of some 300 species found and draws attention to the fact that several eminent dipterists, notably Verrall, Wainwright and Bradley collected Diptera in the area on an occasional basis during the earlier part of the century. Of the more recent surveys, the list published in the Transactions of the North Staffordshire Field Club (1951-52) is the most comprehensive, details of over 500 species collected by Mr. E. Britten being contained therein. The editor of that paper, Mr. J. Edwards, also notable as a collector of Staffordshire Diptera, contributed his own list of additional county records in various subsequent volumes of the Transactions. These publications will provide the reader with details of some 200 Diptera Calyptratae found in the county.

The flies listed in this paper were collected predominantly by net and tube, sweeping and pooting being scarcely used. It is probable therefore, that many of the smaller and less obtrusive species await detection. Visits have taken place on a large number of different dates, but the number of insects taken on each occasion has been small, owing to shortage of time available for identification and collection management. The data given for each species includes assessment of abundance, given by the following declining sequence; very common, common, frequent and several specimens. For species captured only once, the date of capture is given; for those in the other four categories, the month(s) of occurrence is indicated. Additional background information on many of the species together with other observations is provided in the discussion. The arrangement and nomenclature follows Kloet and Hincks (1976) except as modified by the supplements in 'Antenna' (1977).

#### Species List

Family TACHINIDAE  
 Subfamily DEXIINAE  
 Tribe DEXIINI

*Trixa oestroidea* (R.-D.) Several specimens 7, 8.

Subfamily TACHININAE

- Tribe VORIINI  
*Periscepsia spathulata* (Fall.) Frequent. 5.  
*Wagneria gagatea* (R.-D.) 25-6-79.  
*Eriothrix rufomaculata* (Deg.) v. *dimano* (Harris) Very common 6-10.
- Tribe MACQUARTIINI  
*Pelatachina tibialis* (Fall.) Common 5, 6.
- Tribe LESKIINI  
*Solieria vacua* (Rond.) Several specimens 8, 9.
- Tribe LINNAEMYINI  
*Lypha dubia* (Fall.) Common 4, 5.  
*Lydina aenea* (Mg.) Frequent 8.
- Tribe ERNESTIINI  
*Gymnocheta viridis* (Fall.) Frequent 5-8.  
*Ernestia rudis* (Fall.) Several specimens 5.  
*E. truncata* (Zett.) 28-5-78.  
*Eurithia anthophila* (R.-D.) Frequent 8.  
*E. consobrina* (Mg.) Common 7, 8.
- Tribe TACHININI  
*Servillia ursina* (Mg.) 5-4-80.
- Tribe ELOCERIINI  
*Elfia cingulata* (R.-D.) Several specimens 9.  
*Triarthria spinipennis* (Mg.) 10-7-80.
- Subfamily GONIINAE
- Tribe SIPHONINI  
*Actia pilipennis* (Fall.) 27-6-80.  
*Siphona cristata* (Fabr.) Frequent 7, 8, 9.  
*S. geniculata* (Deg.) Frequent 7, 8, 9.  
*S. maculata* (Staeg.) Frequent 5.
- Tribe BLONDELIINI  
*Blondelia nigripes* (Fall.) 8-7-80.  
*Medina luctuosa* (Mg.) 15-6-80.  
*Meigenia mutabilis* (Fall.) 30-5-80.
- Tribe WINTHEMIINI  
*Nemorialla floralis* (Fall.) Common 5-8.  
*Winthemia quadripustulata* (Fabr.) 7-8-76.
- Tribe GONIINI  
*Allophorocera ferruginea* (Mg.) 10-9-78.  
*Cyzenis albicans* (Fall.) Frequent 5.  
*Eumea westermanni* (Zett.) Several specimens 7, 8.  
*Ocytata pallipes* (Fall.) Frequent 7, 8.  
*Pales Pavidia* (Mg.) Frequent 6-9.  
*Platymya fimbriata* (Mg.) Common 6-8.
- Tribe ERYCIINI  
*Carcelia lucorum* (Mg.) 4-8-80.  
*Epicamposcera succincta* (Mg.) Several specimens 8.  
*Lydella grisescens* (R.-D.) Frequent 7.  
*L. stabulans* (Mg.) Frequent 8.  
*Nilea hortulana* (Mg.) 6-7-80.  
*Phryxe nemea* (Mg.) Common 6-8.

- P. vulgaris* (Fall.) Frequent 6-9.  
*Pseudoperichaeta nigrolineata* (Walker) Several specimens 8.
- Family RHINOPHORIDAE  
*Melanomya nana* (Mg.) Several specimens 6-8.  
*Phyto discrepans* / (Pand.) sensu stricto / Several specimens 7, 8.  
*Rhinophora lepida* (Mg.) 17-8-78.  
*Paykullia maculata* (Fall.) Several specimens 8.
- Family SARCOPHAGIDAE  
Subfamily MILTOGRAMMINAE  
*Amobia signata* (Mg.) Several specimens 7.  
*Miltogramma punctatum* (Mg.) Frequent 7,8.  
*Metopia argyrocephala* (Mg.) Several specimens 6.  
*Ptychoneura cylindrica* (Fall.) 22-6-80.
- Subfamily MACRONYCHIINAE  
*Macronychia ungulans* (Pand.) 28-8-78  
*Brachicoma devia* (Fall.) Common 5-8.
- Subfamily SARCOPHAGINAE  
*Sarcophaga carnaria* (L.) Very common 5-10.  
*S. crassimargo* (Pand.) Several specimens 8.  
*S. dissimilis* (Mg.) Several specimens 6.  
*S. haemorrhoea* (Mg.) Several specimens 6.  
*S. incisilobata* (Pand.) Common 7-9.  
*S. subvincina* (Rohdendorf) Common 10.
- Family CALLIPHORIDAE  
*Calliphora subalpina* (Ringd.) Frequent 6-8.  
*C. vicina* (R.-D.) Common 5-10.  
*C. vomitoria* (L.) Frequent 5-10.  
*Bellardia agilis* (Mg.) 27-7-76.  
*B. unxia* (Walker) 8-7-78.  
*B. pusilla* (Mg.) Frequent 7.  
*Cynomya mortuorum* (L.) Several specimens 6-8.  
*Lucilia caesar* (L.) Common 5-11.  
*L. illustris* (Mg.) Common 7.  
*L. sericata* (Mg.) Common 5-11.  
*Pollenia rudis rudis* (Fabr.) Very common 4-11.  
*P. varia* (Mg.) 16-8-80
- Subfamily PHORMIINAE  
*Phormia terraenovae* (R.-D.) Several specimens 7-10.  
*Protocalliphora azurea* (Fall.) Common 4-10.
- Family SCATHOPHAGIDAE  
Subfamily SCATHOPHAGINAE  
*Norellisoma spinimanum* (Fall.) Common 5-8.  
*Cordilura impudica* (Rond.) Frequent 6.  
*C. pudica* (Mg.) Frequent 9.  
*Cordilurina albipes* (Fall.) Frequent 6.  
*Nanna fasciata* (Mg.) Common 5-7.  
*Cleigastra apicalis* (Mg.) Frequent 6, 7.  
*Scathophaga furcata* (Say.) Common 8.

- S. inquinata* (Mg.) Common 6.  
*S. lutaria* (Fabr.) Frequent 8-10.  
*S. stercoraria* (L.) Common 4-10.

## Family

## ANTHOMYIIDAE

- Chirosia albitarsis* (Zett.) Several specimens 5,6.  
*C. flavipennis* (Fall.) Several specimens 7, 8.  
*C. parvicornis* (Zett.) Several specimens 5, 6.  
*Pegohylemyia brunneilinea* (Zett.) Several specimens 8.  
*P. fugax* (Mg.) Very common 6-10.  
*P. obscura* (Zett.) Several specimens 5.  
*P. striolata* (Fall.) Frequent 5.

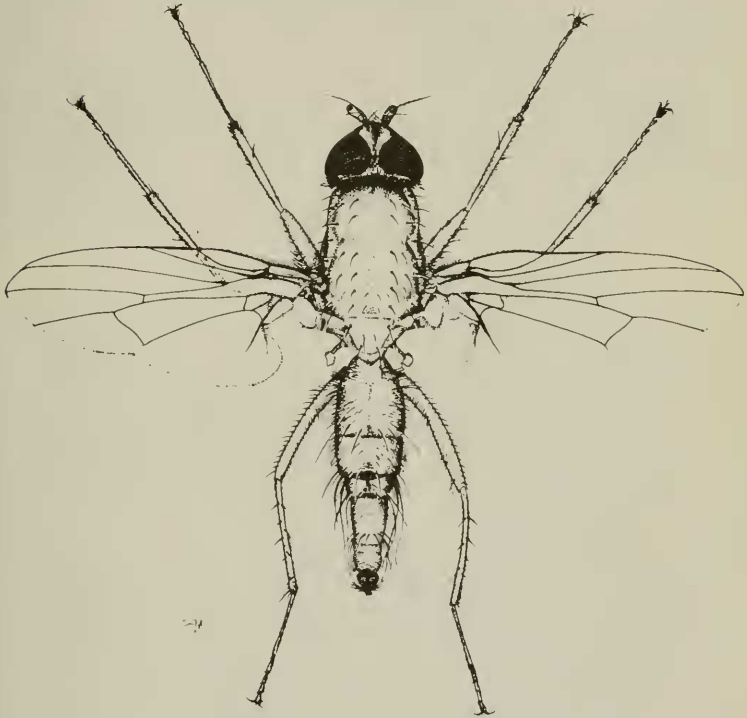


Fig. 1. *Delia criniventris* (Zett.) ♂  
 Wing length 6 mm.

- Lasiomma meadei* (Kowartz) Frequent 3-5.  
*L. nitidicauda* (Zett.) Common 4-10.  
*Hydrophoria ambigua* (Fall.) 2-7-80.  
*H. annulata* (pand.) Frequent 8.  
*H. caudata* (Zett.) 27-5-80  
*H. conica* (Weied.) Common 6, 7.  
*H. linogrisea* (Mg.) Frequent 5, 6.  
*Craspedochoeta pullula* (Zett.) Very common 6-9.  
*Anthomyia imbrida* (Rond.) Very common 5-9.

- Phorbia curvicauda* (Zett.) 1-5-80.  
*P. securis* (Tiens.) Common 5.  
*P. sepia* (Mg.) Common 5.  
*Leucophora cinerea* (R.-D.) Several specimens 6.  
*L. grisella* (Hennig.) 8-7-80.  
*L. obtusa* (Zett.) Frequent 5.  
*L. personata* (Collin) Frequent 5.  
*Eustalomyia festiva* (Zett.) Frequent 6-9.  
*E. histrio* (Zett.) Frequent 6-9.  
*Delia brassicae* (Hoff.) Common 5.  
*D. coarctata* (Fall.) Common 7.  
*D. criniventris* (Zett.) 23-9-79.  
*D. florilega* (Zett.) Common 5.  
*D. lamelliseta* (Stein) 16-8-80.  
*D. platura* (Mg.) Common 5, 6.  
*Hylemya latifrons* (Schnabl & Dzedzicki) Common 5, 6.  
*H. partita* (Mg.) Frequent 8.  
*H. strenua* (R.-D.) Common 6-9.  
*Heterostylodes pratensis* (Mg.) 15-8-80.  
*Paregle cinerella* (Fall.) 19-8-80.  
*P. radicum* (L.) Very common 4-10.  
*Egle minuta* (Mg.) Several specimens 3, 4.  
*E. muscaria* (Fabr.) Frequent 3, 4.  
*E. rhinotneta* (Pand.) 2-4-8.  
*Nupedia infirma* (Mg.) Common 4-8.  
*Pseudonupedia intersecta* (Mg.) Common 4-8.  
*Emmesomyia villica* (Mg.) Several specimens 5.  
*Pegomyza praepotens* (Wied.) Frequent 6-8.  
*Pegomyza haemorrhoea* (Zett.) Several specimens 5.  
*P. nigritarsis* (Zett.) Common 6.

## Family

## FANNIIDAE

- Piezura graminicola* (Zett.) 12-7-80.  
*Fannia aequilineata* (Ringd.) 5 (ex breeding experiment).  
*F. armata* (Mg.) Common 7, 8.  
*F. canicularis* (L.) Very common 4-9.  
*F. coracina* (Loew) Common 5-7.  
*F. fuscula* (Fall.) Common 7-9.  
*F. genualis* (Stein) 29-5-79.  
*F. hamata* (Macq.) Common 6-8.  
*F. mollissima* (Hal.) Frequent 5.  
*F. monilis* (Hal.) Several specimens 6.  
*F. pallitibia* (Rond.) 6-11-77.  
*F. postica* (Stein) Frequent 6.  
*F. rondanii* (Strobl) Common 5, 6.  
*F. scalaris* (Fabr.) Common 5-7.  
*F. serena* (Fall.) Common 5-6.  
*F. sociella* (Zett.) Common 5, 6.  
*F. vesparia* (Meade) Several specimens 6.

(To be continued)